



**MICHIGAN**  
AIR CONDITIONING CONTRACTORS  
ASSOCIATION

**March 17th, 2016**

# **Testimony**

## **HB 5435, 5436 & 5437**

### **House Workforce Development Committee**

# **Executive Director**

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# MICHIGAN'S HVAC INDUSTRY

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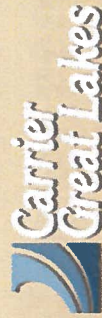
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# **LEGISLATIVE GOALS – HB5437**

- CREDIT WORK EXPERIENCE FOR VETERANS
- CREDIT WORK EXPERIENCE FOR TRAINING/EDUCATION COMPLETERS
- FASTLANE BUSINESS EXPANSION FOR CURRENT MECHANICAL LICENSE HOLDERS

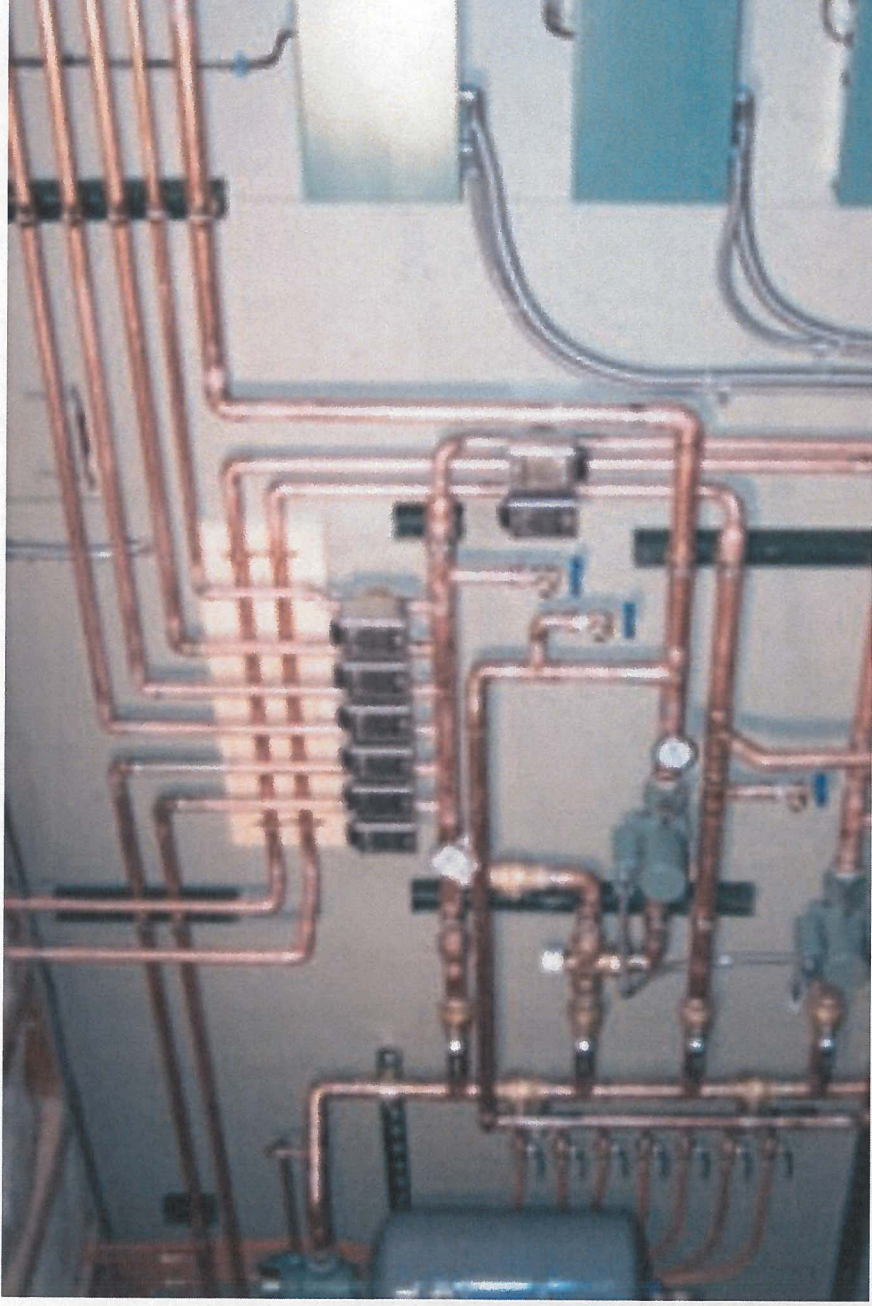
# **MECHANICAL LICENSE CLASSIFICATIONS**

MUST HAVE A MINIMUM OF 3 YEARS EXPERIENCE IN EACH OF THE WORK CLASSIFICATIONS APPLIED FOR BELOW. HVAC EQUIPMENT

1. HYDRONIC HEATING AND COOLING AND PROCESS PIPING
2. DUCTWORK
3. REFRIGERATION
4. LIMITED HEATING SERVICE
5. UNLIMITED HEATING SERVICE
6. LIMITED REFRIGERATION AND AIR CONDITIONING SERVICE
7. UNLIMITED REFRIGERATION AND AIR CONDITIONING SERVICE
8. FIRE SUPPRESSION
9. SPECIALTY LICENSE
  1. SOLAR HEATING AND COOLING
  2. SOLID FUEL AND VENTED DECORATIVE GAS APPLIANCES
  3. LP DISTRIBUTION PIPING
  4. FUEL GAS PIPING
  5. FUEL GAS PIPING AND VENTING



# HYDRONIC PIPING SYSTEM





# **COMMONLY ENCOUNTERED WATER HEATER INSTALLATION**











620

603 3/4

606-3M

PTC 3



# LOW-VOLTAGE WIRING





# **DANIEL** SQUIRES

- MIACCA BOARD MEMBER
- PRESIDENT OF VINCENT PLUMBING & HEATING, INC.
  - HOLDS MI PLUMBER'S LICENSE
  - HOLDS MULTIPLE MI MECHANICAL CLASSIFICATIONS







Good morning. I'm Daniel Squires, president of Vincent's Heating & Plumbing, Inc. of Port Huron.

Overall, the package of bills being considered are both pro-job and pro-consumer. This is because they bring common sense corrections to rules that when examined closely are more concerned with restriction of trade versus any real protection of public safety by which they may have been originally justified. Restriction of trade, of course, causes higher prices and thereby economic harm for consumers. Without a valid public safety concern, such rules should be corrected. Especially since, in today's "new economy" a consumer is not as helpless as when fewer choices and alternatives were available.

The reality is that consumers now seek out services and products from less expensive providers and bypass traditional channels – including those traditional channels that are regulated by licensure and rules - as in the package of bills being considered today.

Ironically, protectionist rules that cause higher prices damage the traditional channel and the workers in it. This is of importance to this committee as it considers how to protect the existing workforce.

For instance, consider a simple residential water heater replacement – the topic that HB 5435 addresses. The real competition is not between mechanicals and plumbers, as –turf wars aside - the price charged to replace a residential water heater is going to be similar for either trade. Instead, the real competition is with big box stores such as Lowes and Home Depot and the unlicensed handymen that install them – or even the homeowners themselves as advances in the parts and technology needed to replace a water heater have



reduced the need for technical proficiency. Do we really need a law that requires 2 different trades and 2 different licenses for a simple residential water heater replacement? In regard to the replacement of water heaters, the state of Michigan had until recently been guided by Technical Bulletins 5 and 45 – included with my written testimony. Now deemed obsolete, these technical bulletins allowed either licensed plumbers or licensed mechanicals to install water heaters – which they did with no harm to the public. HB 5435 restores this common-sense approach permanently.

HB 5436 is similar, except that now we are talking about a turf war to run low voltage thermostat wires for heating and cooling equipment. The electrical code currently allows licensed mechanicals and licensed plumbers to replace existing low voltage thermostat wires but not to install them – the exact same task! If a plumber or mechanical can be trusted to replace a low voltage wire, doesn't common sense dictate that they can install one safely and correctly? The purpose of HB 5436 is to eliminate this protectionist loophole.

Finally, HB 5437. To the arguments I have already advanced, add the fact that our skilled trades face a major worker shortage and that many of our license holders are aging out. In order to be licensed as a mechanical contractor an applicant must be examined to show competency. However, current law imposes a bottleneck that requires an individual to work for an existing license holder for a period of 3 years before they are allowed to sit for the exam even if they have previous experience from another source.

HB 5437 provides some relief from this for veterans who have obtained HVAC work experience in the military and for graduates of colleges who learned heating and cooling at





school – as up to 1 year of experience credit can be earned for past experience and training in school.

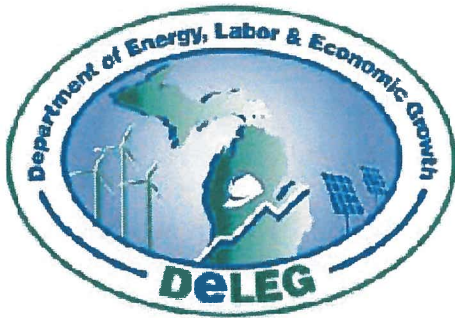
In addition, because HVAC is so broad, mechanical licenses are subdivided by classification – for instance “ductwork” is a different classification from “HVAC equipment”. The same bottleneck I described above applies to existing licensed mechanical contractors who desire to expand into a different classification. Again, in order to be examined to show competency in a new classification to expand their license, current law requires that they have to work for a license holder that has that classification. Should a contractor wishing to expand their business be forced to shut their business down in order to obtain 3 years of experience working for another contractor just to qualify for a test to show their competency? It won’t happen. And so the pool of licensees with particular classifications will stagnate and shrink. Again, we face a shortage of skilled tradesmen in our workforce plus it is aging out. HB 5437 provides relief from the 3-year work experience requirement for currently licensed mechanicals in good standing to sit for examination to prove their competency to obtain certain additional new classifications.

In summary, all 3 of these bills are common-sense corrections to existing laws that improve the climate for Michigan workers to succeed, to protect consumers from the costs of restriction of trade – and – in the bigger picture – to protect the Michigan trades affected as the realities of the new economic forces and changes become manifest. I urge your support for these bills.

Thank you.







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**Michigan Department of Energy, Labor & Economic Growth  
Bureau of Construction Codes  
P.O. Box 30254  
Lansing, Michigan 48909  
(517) 241-9302**

## **Bureau of Construction Codes Technical Bulletin**

Publication Number 5

Updated: July 13, 2006

# **Gas Fired Water Heater Installation**

*"Providing for Michigan's Safety in the Built Environment"*

Technical bulletins are issued to provide clarification on issues that arise regarding code administration and enforcement. The information provided in the bulletin is developed to promote uniform interpretation and enforcement of the state codes.

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# **GAS FIRED WATER HEATER INSTALLATION**

## **Issue**

This document has been prepared in response to requests for clarification of the requirements for the installation of gas fired water heaters and to set forth the appropriate licensing and installation standards by which such installations should be measured.

## **Discussion**

The installation of a gas fired water heater encompasses at least two trades and could involve others as well. The installation standards for gas fired water heaters are found in both the Michigan Plumbing and Mechanical Codes. The Michigan Plumbing and Electrical Codes similarly regulate electric water heaters.

The determination of who may install gas fired water heaters is accomplished by a review of both the Plumbing Licensing Law and the Forbes Mechanical Contractors Act.

This report will explore both facets of the regulations (licensing and code) and set forth the policy of the Bureau of Construction Codes (Bureau). This report also recommends changes in the respective codes and licensing laws for the installation of water heaters.

## **Code Provisions**

### **Michigan Mechanical Code**

The Michigan Mechanical Code provides for the installation of boilers and water heaters. It covers such provisions as safety and pressure relief valves, gas piping, venting, and materials for installation.

A water heater is defined as:

“Any heating device that heats potable water and supplies it to the potable hot water distribution system.”

The gas piping to any fuel fired appliance is regulated through the code by defining the type and size of piping and setting forth the installation standards for the piping.

The venting of all flue gases is regulated by the code through the materials, sizing, and installation of the venting system.

Potable water connections are regulated as well. Section 601.1 states, in part:

“ . . .the potable water connections and relief valves for all water heaters shall conform to the requirements of the plumbing code listed in Appendix A.”

## **Michigan Plumbing Code**

The Michigan Plumbing Code defines water heaters in the same manner as the Michigan Mechanical Code. Also, the minimum size of the water heater, pressure rating, drain valves, performance efficiency, safety devices, and other considerations are provided for within the plumbing code. Additionally, the plumbing code references the mechanical code for the installation of water heaters. Specifically, section 502.1 states:

“Water heaters shall be installed in accordance with the manufacturer’s installation instructions. Oil-fired water heaters shall conform to the requirements of this code and the *International Mechanical Code*. Electric water heaters shall conform to the requirements of this code and provisions of the ICC *Electrical Code*. Gas-fired water heaters shall conform to the requirements of the *International Fuel Gas Code*.”

## **Licensing Provisions**

### **The Forbes Mechanical Contractors Act, PA 192, of 1984, as amended**

PA 192 of 1984, as amended, provides for the licensing of all persons performing the installation, alteration, and servicing of specified heating, cooling, ventilating, and refrigeration equipment and systems.

This act defines heating as:

“Used alone, means the use of any fuel or electricity to generate heat in an air conditioning system. When used with a qualifying term such as ‘hydronic’, the term heating assumes the limited meaning expressed by such qualification.”

The language contained in the law sets forth certain categories for licensure, including:

- Hydronic heating and cooling process piping
- HVAC equipment
- Ductwork
- Refrigeration
- Limited service, heating and refrigeration
- Unlimited service, heating and refrigeration
- Fire suppression
- Specialty

Within the categories are the crafts of gas piping and flue venting of gases, which are the byproducts of combustion equipment.

PA 192 of 1984, as amended, provides for the testing and licensing of contractors based upon a test of proficiency of individuals in the contracting business. However, individual



practitioners performing the installations are not so licensed under the law. The basis of the law is to hold the contractor responsible for the work.

### **Plumbing, 2002 PA 733**

2002 PA 733 provides for the licensure of individuals performing plumbing work, as well as contractors. Plumbing is defined as:

“(b) “Plumbing” means the practice, materials, and fixtures, in or adjacent to a building, structure, or premises, used in the installation, maintenance, extension, or alteration of all piping, fixtures, plumbing appliances, plumbing appurtenances, as defined by the code, in connection with the sanitary drainage or storm drainage facilities, plumbing venting systems, medical gas systems, backflow preventers, and public or private water supply systems.”

This legislation places reliance on the plumbing code for definition of various components. Only licensed master and journey plumbers may perform plumbing work as defined in the law.

### **Conclusion**

While the codes provide for the regulation of all aspects of the installation of water heaters, the licensing criteria does not specifically delineate the requirements for practitioners.

Either an authorized master plumber or a mechanical contractor may install a water heater. However, a duly licensed plumber under the provisions of 2002 PA 733 must install the potable water lines. Similarly, the installation of gas piping and vent flues are under the jurisdiction of PA 192, of 1984, as amended, requiring a licensed mechanical contractor to secure the permit and supervise the installation.

The Attorney General Opinion does allow non-licensed plumbers to make connections of water heaters with water supply and drainage systems.

Authorized master plumbers, who wish to continue the installation of water heaters, including the installation of the mechanical aspects of the installation, may apply for a specialty license including gas piping and venting or an HVAC license to perform this work.

Mechanical contractors who wish to install potable water lines are required to be licensed under the provisions of PA 266 of 1929, as amended.

Tradition has indicated that plumbers have installed gas piping and water heaters prior to the enactment of the Forbes Mechanical Contractors Act. Both mechanical contractors and plumbers have performed the installation of replacement water heaters. The

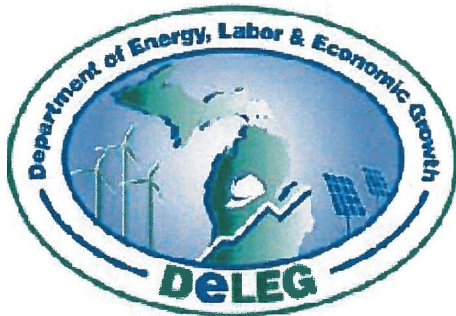
installation of new equipment has not posed a problem, as both trades are typically on-site during the course of construction.

Permitting of a replacement installation has caused some difficulty in the past, however the Bureau will be modifying its permits to allow a mechanical or plumbing contractor to install replacements under a single permit. The licensing requirements for practitioners will remain as currently provided by the two licensing laws. Inspections will be conducted to assure compliance with the applicable code provisions. The mechanical and plumbing permit applications will be revised to include an affidavit for certification that appropriate licensed individuals will perform the work to install replacement gas fired water heaters.

Because the two licensing provisions are incomplete in the regulation of water heater installation, changes will be recommended to both provisions to clearly set forth the limits for installation.

Questions regarding this technical bulletin may be directed to the Michigan Department of Energy, Labor & Economic Growth, Bureau of Construction Code, P.O. Box 30254, Lansing, MI 48909 or by calling (517) 241-9330 (Plumbing Division) or (517) 241-9325 (Mechanical Division).





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## **Bureau of Construction Codes Technical Bulletin**

Publication Number 45

Updated: July 13, 2006

# Replacement Water Heaters

***“Providing for Michigan’s Safety in the Built Environment”***

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## **REPLACEMENT WATER HEATERS**

### **Issue**

Recent revisions to the State Plumbing Law include amendments to the provisions of the law governing the installation of gas fired water heaters. Section 15(5) of the State Plumbing Law provides:

“This act does not prevent a person from performing any activities within the scope of licensure or registration under any other licensure or registration act or applicable codes for that licensed or registered professional adopted pursuant to law.”

Does this revision replace the requirements set forth in Technical Bulletin Number 5 on the replacement of gas fired water heaters? Further, is a mechanical contractor license required to replace a water heater?

### **Discussion**

Technical Bulletin Number 5 clarifies the requirements for the installations of gas fired water heaters and sets forth the licensing and installation standards by which such installations should be measured.

While the two licensing statutes set forth who may perform installation of replacement water heaters, some clarification is needed to address the duplicity of permits, who may perform the specific work associated with the replacement of water heaters and the standards by which the work should be measured.

As noted in Technical Bulletin Number 5, the Michigan Mechanical Code provides for the installation of boilers, water heaters, and pressure vessels. The regulations include provisions for safety and pressure relief valves and controls, gas piping, venting and materials for installation.

The Michigan Plumbing Code provides for the installation of water heaters. Specifically, Chapter 5 addresses the installation, connections, safety devices, and insulation requirements.

Additionally, the Michigan Residential Code sets forth similar provisions.

Because the licensing provisions have been addressed within the State Plumbing Law, coordination of these requirements with the mechanical licensing provisions must be reviewed.



The Forbes Mechanical Contractors Act, PA 192 of 1984, as amended, provides for the licensing of all persons performing the installation, alteration, and servicing of specified heating, cooling, ventilating, and refrigeration equipment and systems.

Contained within this law are provisions for the crafts of gas piping, and flue venting of gases which are the byproducts of combustion equipment.

This law sets forth provisions for testing and licensure of contractors based on proficiency testing on the technical requirements for the installation of mechanical equipment and devices, as well as the business practices associated with the mechanical profession. However, individual practitioners performing the installation are not so licensed under the law.

The Plumbing Law provides for the licensure of individuals performing plumbing work, as well as plumbing contractors.

Plumbing is defined as: “the practice, materials, and fixtures, in or adjacent to a building, structure, or premises, used in the installation, maintenance, extension, or alteration of all piping, fixtures, plumbing appliances, plumbing appurtenances, as defined by the code, in connection with the sanitary drainage or storm drainage facilities, plumbing venting systems, medical gas systems, backflow preventers, and public or private water supply systems.”

This legislation places reliance upon the Michigan Plumbing Code for the definition of various components. Section 2 of the code provides for water heaters as a part of the water supply system.

While the Michigan Mechanical Code and the Michigan Plumbing Code contain provisions for water heaters, some clarification is needed to address permitting and inspection requirements.

The codes provide for the regulation of all aspects of the installation of water heaters, the licensing criteria, overlaps and would indicate both licenses are required to replace a water heater. Because the code provisions set forth the specific elements necessary for a safe installation, it is redundant to require two permits for the replacement of a water heater.

Traditionally, both mechanical contractors and master plumbers have replaced water heaters in existing installations. Often these replacements may require some movement of the water, gas and vent lines to facilitate the replacement equipment. This is based on available equipment, size of the replacement device and surrounding conditions that may constrict the installation.

Additionally, requiring two permits is not in the best interest of the public. The purpose of a permit is to provide for the inspection of the device to assure the minimum safety conditions exist to ensure the safe operation of the device. As noted earlier, the two

codes provide sufficient guidance for the installation of water heaters in a replacement environment.

### **Conclusion**

Therefore, the provisions of Technical Bulletin Number 5 remain applicable and only one permit should be secured for the replacement of a water heater. Either a mechanical or plumbing contractor may install replacement water heaters. Both mechanical and plumbing contractors have been sufficiently tested to determine competency in the safe installation of a replacement water heater. Either a mechanical or plumbing inspector may conduct the inspection of a replacement water heater. The scope of limitation of work should be based on a practical application of the code requirements to assure the safety of the device.

Questions regarding this technical bulletin may be directed to the Michigan Department of Energy, Labor & Economic Growth, Bureau of Construction Codes, P.O. Box 30254, Lansing, MI 48909 or by calling the Mechanical Division at (517) 241-9325 or the Plumbing Division at (517) 241-9330.